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RAW SEQUENCE LISTING DATE: 12/18/2001
PATENT APPLICATION: **US/09/991,470** TIME: 16:53:39

Input Set : **N:\Crf3\RULE60\09991470.raw**
Output Set: **N:\CRF3\12182001\I991470.raw**

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      1 <110> APPLICANT: Ruey S. Liou
      2 <120> TITLE OF INVENTION: ANTI-IGE GENE THERAPY
      3 <130> FILE REFERENCE: 99-5
      4 <140> CURRENT APPLICATION NUMBER: 09/991,470
      5 <141> CURRENT FILING DATE: 2001-11-20
      6 <150> PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/397,569
W--->  7 <151> PRIOR FILING DATE: EARLIER FILING DATE: 1999-09-16
      8 <160> NUMBER OF SEQ ID NOS: 27
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     13 <212> TYPE: DNA
     14 <213> ORGANISM: primer
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     19 <211> LENGTH: 19
     20 <212> TYPE: DNA
     21 <213> ORGANISM: primer
     22 <400> SEQUENCE: 2
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     26 <211> LENGTH: 21
     27 <212> TYPE: DNA
     28 <213> ORGANISM: primer
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     34 <212> TYPE: DNA
     35 <213> ORGANISM: primer
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     39 <210> SEQ ID NO: 5
     40 <211> LENGTH: 85
     41 <212> TYPE: DNA
     42 <213> ORGANISM: primer
     43 <400> SEQUENCE: 5
     44       ccctggtgac cgtgagctca ggtggcggtg gctcgggcgg tggtgggtcg ggtggcggcg  60
     45       gatctgacat cctgctgacc cagag                                       85
     47 <210> SEQ ID NO: 6
     48 <211> LENGTH: 15
     49 <212> TYPE: DNA
     50 <213> ORGANISM: primer
     51 <400> SEQUENCE: 6
     52       ggggsggggs ggggs                                                 15
     54 <210> SEQ ID NO: 7
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/991,470

DATE: 12/18/2001
TIME: 16:53:39

Input Set : N:\Crf3\RULE60\09991470.raw
Output Set: N:\CRF3\12182001\I991470.raw

55 <211> LENGTH: 35
56 <212> TYPE: DNA
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58 <400> SEQUENCE: 7
59 gcggcccagc cggcccaggt gcagctggtg cagag 35
61 <210> SEQ ID NO: 8
62 <211> LENGTH: 34
63 <212> TYPE: DNA
64 <213> ORGANISM: primer
65 <400> SEQUENCE: 8
66 ctgcggccgc tttgatctcc accttggtgc cctg 34
68 <210> SEQ ID NO: 9
69 <211> LENGTH: 38
70 <212> TYPE: DNA
71 <213> ORGANISM: primer
72 <400> SEQUENCE: 9
73 tcccaagctt tcaccatgca ggtgcagctg gtgcagag 38
75 <210> SEQ ID NO: 10
76 <211> LENGTH: 33
77 <212> TYPE: DNA
78 <213> ORGANISM: primer
79 <400> SEQUENCE: 10
80 cccgctcgag tcatttgatc tccaccttgg tgc 33
82 <210> SEQ ID NO: 11
83 <211> LENGTH: 34
84 <212> TYPE: DNA
85 <213> ORGANISM: primer
86 <400> SEQUENCE: 11
87 tcccagatct aagcttgccg ccaccatgga ctgg 34
89 <210> SEQ ID NO: 12
90 <211> LENGTH: 22
91 <212> TYPE: DNA
92 <213> ORGANISM: primer
93 <400> SEQUENCE: 12
94 ggtgatctcg cccacccact cc 22

97 <211> LENGTH: 30
98 <212> TYPE: DNA
99 <213> ORGANISM: primer
100 <400> SEQUENCE: 13
101 cccgagatct cgagtcattt gatctccacc 30
103 <210> SEQ ID NO: 14
104 <211> LENGTH: 27
105 <212> TYPE: DNA
106 <213> ORGANISM: primer
107 <400> SEQUENCE: 14
108 ggagatctcc acagtccctg aacacac 27
110 <210> SEQ ID NO: 15
111 <211> LENGTH: 21

RAW SEQUENCE LISTING DATE: 12/18/2001
PATENT APPLICATION: US/09/991,470 TIME: 16:53:39

Input Set : N:\Crf3\RULE60\09991470.raw
Output Set: N:\CRF3\12182001\I991470.raw

112 <212> TYPE: DNA
113 <213> ORGANISM: primer
114 <400> SEQUENCE: 15
115 tcatttaccc ggagacaggg a 21
117 <210> SEQ ID NO: 16
118 <211> LENGTH: 21
119 <212> TYPE: DNA
120 <213> ORGANISM: primer
121 <400> SEQUENCE: 16
122 ctaacactct cccctgttga a 21
124 <210> SEQ ID NO: 17
125 <211> LENGTH: 27
126 <212> TYPE: DNA
127 <213> ORGANISM: primer
128 <400> SEQUENCE: 17
129 tgaagaaagc ttgccgccac catggag 27
131 <210> SEQ ID NO: 18
132 <211> LENGTH: 29
133 <212> TYPE: DNA
134 <213> ORGANISM: primer
135 <400> SEQUENCE: 18
136 gcatccgctc gtttgatctc caccttggt 29
138 <210> SEQ ID NO: 19
139 <211> LENGTH: 38
140 <212> TYPE: DNA
141 <213> ORGANISM: primer
142 <400> SEQUENCE: 19
143 cggaattcga gcggatgctg caccaactgt atcgatct 38
145 <210> SEQ ID NO: 20
146 <211> LENGTH: 40
147 <212> TYPE: DNA
148 <213> ORGANISM: primer
149 <400> SEQUENCE: 20
150 gctctagagc taacactcat tcctgttgaa gctcttgaca 40
152 <210> SEQ ID NO: 21
154 <212> TYPE: DNA
155 <213> ORGANISM: primer
156 <400> SEQUENCE: 21
157 tgagctcacg gtcaccaggg t 21
159 <210> SEQ ID NO: 22
160 <211> LENGTH: 369
161 <212> TYPE: DNA
162 <213> ORGANISM: human/murine
163 <220> FEATURE:
164 <221> NAME/KEY: CDS
165 <222> LOCATION: (1)...(366)
166 <400> SEQUENCE: 22
167 cag gtg cag ctg gtg cag agc ggc gcc gag gtg aag aag ccc ggc gcc 48

RAW SEQUENCE LISTING DATE: 12/18/2001
PATENT APPLICATION: US/09/991,470 TIME: 16:53:39

Input Set : N:\Crf3\RULE60\09991470.raw
Output Set: N:\CRF3\12182001\I991470.raw

```
168       Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
169        1               5                  10                  15
170       agc gtg aag gtg agc tgc aag gcc agc ggc tac acc ttc agc atg tac      96
171       Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Met Tyr
172                    20                  25                  30
173       tgg ctg gag tgg gtg agg cag gcc ccc ggc cac ggc ctg gag tgg gtg     144
174       Trp Leu Glu Trp Val Arg Gln Ala Pro Gly His Gly Leu Glu Trp Val
175                 35                  40                  45
176       ggc gag atc agc ccc ggc acc ttc acc acc aac tac aac gag aag ttc     192
177       Gly Glu Ile Ser Pro Gly Thr Phe Thr Thr Asn Tyr Asn Glu Lys Phe
178            50                  55                  60
179       aag gcc agg gcc acc ttc acc gcc gac acc agc acc aac acc gcc tac     240
180       Lys Ala Arg Ala Thr Phe Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
181        65                  70                  75                  80
182       atg gag ctg agc agc ctg agg agc gag gac acc gcc gtg tac tac tgc     288
183       Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
184                       85                  90                  95
185       gcc agg ttc agc cac ttc agc ggc agc aac tac gac tac ttc gac tac     336
186       Ala Arg Phe Ser His Phe Ser Gly Ser Asn Tyr Asp Tyr Phe Asp Tyr
187                   100                 105                 110
188       tgg ggc cag ggc acc ctg gtg acc gtg agc tca                         369
189       Trp Gly Gln Gly Thr Leu Val Thr Val Ser
190                 115                 120
192 <210> SEQ ID NO: 23
193 <211> LENGTH: 122
194 <212> TYPE: PRT
195 <213> ORGANISM: human/murine
196 <400> SEQUENCE: 23
197       Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
198        1               5                  10                  15
199       Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Met Tyr
200                    20                  25                  30
201       Trp Leu Glu Trp Val Arg Gln Ala Pro Gly His Gly Leu Glu Trp Val
202                 35                  40                  45
203       Gly Glu Ile Ser Pro Gly Thr Phe Thr Thr Asn Tyr Asn Glu Lys Phe
204            50                  55                  60
206       65                  70                  75                  80
207       Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
208                       85                  90                  95
209       Ala Arg Phe Ser His Phe Ser Gly Ser Asn Tyr Asp Tyr Phe Asp Tyr
210                   100                 105                 110
211       Trp Gly Gln Gly Thr Leu Val Thr Val Ser
212                 115                 120
214 <210> SEQ ID NO: 24
215 <211> LENGTH: 321
216 <212> TYPE: DNA
217 <213> ORGANISM: human/murine
218 <220> FEATURE:
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RAW SEQUENCE LISTING DATE: 12/18/2001
PATENT APPLICATION: US/09/991,470 TIME: 16:53:40

Input Set : N:\Crf3\RULE60\09991470.raw
Output Set: N:\CRF3\12182001\I991470.raw

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220 <222> LOCATION: (1)...(321)
221 <400> SEQUENCE: 24
222       gac atc ctg ctg acc cag agc ccc ggc acc ctg agc ctg agc ccc ggc       48
223       Asp Ile Leu Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
224        1               5                  10                  15
225       gag agg gcc acc ctg agc tgc agg gcc agc cag agc atc ggc acc aac       96
226       Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Gly Thr Asn
227                    20                  25                  30
228       atc cac tgg tac cag cag aag ccc ggc cag gcc ccc agg ctg ctg atc      144
229       Ile His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
230                35                  40                  45
231       aag tac gcc agc gag agc atc agc ggc atc ccc agc agg ttc agc ggc      192
232       Lys Tyr Ala Ser Glu Ser Ile Ser Gly Ile Pro Ser Arg Phe Ser Gly
233             50                  55                  60
234       agc ggc agc ggc acc gac ttc acc ctg acc atc agc agg ctg gag ccc      240
235       Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
236        65                  70                  75                  80
237       gag gac ttc gcc atg tac tac tgc cag cag agc gac agc tgg ccc acc      288
238       Glu Asp Phe Ala Met Tyr Tyr Cys Gln Gln Ser Asp Ser Trp Pro Thr
239                        85                  90                  95
240       acc ttc ggc cag ggc acc aag gtg gag atc aaa                          321
241       Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
242                    100                 105
244 <210> SEQ ID NO: 25
245 <211> LENGTH: 107
246 <212> TYPE: PRT
247 <213> ORGANISM: human/murine
248 <400> SEQUENCE: 25
249       Asp Ile Leu Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
250        1               5                  10                  15
251       Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Gly Thr Asn
252                    20                  25                  30
253       Ile His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
254                35                  40                  45
257       Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
258       65                  70                  75                  80
259       Glu Asp Phe Ala Met Tyr Tyr Cys Gln Gln Ser Asp Ser Trp Pro Thr
260                        85                  90                  95
261       Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
262                    100                 105
264 <210> SEQ ID NO: 26
265 <211> LENGTH: 735
266 <212> TYPE: DNA
267 <213> ORGANISM: human/murine
268 <220> FEATURE:
269 <221> NAME/KEY: CDS
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VERIFICATION SUMMARY DATE: 12/18/2001
PATENT APPLICATION: **US/09/991,470** TIME: 16:53:41

Input Set : **N:\Crf3\RULE60\09991470.raw**
Output Set: **N:\CRF3\12182001\I991470.raw**

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